



## Fact Sheet

### *Guidelines for Water Systems*

# Arsenic in Drinking Water

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(updated)

## Requirements for Water Systems

In January 2001, the Environmental Protection Agency (EPA) lowered the Maximum Contaminant Level (MCL) for arsenic from 50 parts per billion (ppb) to 10 ppb. The lower federal standard becomes effective in January 2006 for existing Group A Community (serving more than 25 people) and Non-Transient, Non-Community (NTNC) public water systems.

On February 22, 2002, the arsenic reporting requirements for the annual Consumer Confidence Reports (CCR) were changed. After this date, depending upon the level of arsenic detected, community water systems must include the concentration of arsenic reported by the laboratory and possibly an educational or health effects information statement about arsenic in their CCRs.

## Consumer Confidence Reports

CCR reporting requirements depend upon the concentration of arsenic reported by a laboratory. Arsenic concentrations within the three ranges described below have distinct reporting requirements. If a laboratory reports an arsenic value of “<10” or “less than 10 ppb” contact DOH for specific information.

### **Arsenic reported below 5 ppb:**

Any arsenic value reported by a laboratory above the method detection limit and below 5 ppb must be included in the CCR water quality data table. There are no additional reporting requirements for results below 5 ppb.

### **Arsenic reported between 5-10 ppb:** (use EPA or DOH’s suggested language)

#### **EPA’s educational statement – in federal rule:**

While your drinking water meets EPA’s standard for arsenic, it does contain low levels of arsenic. EPA’s standard balances the current understanding of arsenic’s possible health effects against the costs of removing arsenic from drinking water. EPA continues to research the health effects of low levels of arsenic, which is a mineral known to cause cancer in humans at high concentrations and is linked to other health effects such as skin damage and circulatory problems.

#### **Department of Health’s recommended educational statement:**

Your drinking water currently meets EPA’s revised drinking water standard for arsenic. However, it does contain low levels of arsenic. There is a small chance that some people who drink water containing low levels of arsenic for many years could develop circulatory disease, cancer, or other health problems. Most types of cancer and circulatory diseases are due to factors other than exposure to arsenic. EPA’s standard balances the current understanding of arsenic’s health effects against the costs of removing arsenic from drinking water.



HELPING TO ENSURE SAFE AND RELIABLE DRINKING WATER

## **Arsenic reported above 10 ppb:**

### **EPA's health effects statement – in federal rule:**

Some people who drink water that contains arsenic in excess of the MCL over many years could experience skin damage or problems with their circulatory system, and may have an increased risk of getting cancer.

## **Financial Assistance for Water Systems**

The Drinking Water State Revolving Fund, administered by the Department of Health and the Public Works Board, may be able to help systems move toward compliance with this new standard by offering low interest loans. Information on the State Revolving Fund can be accessed at:

[http://www.doh.wa.gov/ehp/dw/Our\\_Main\\_Pages/dwsrf.htm](http://www.doh.wa.gov/ehp/dw/Our_Main_Pages/dwsrf.htm)

In addition, EPA plans to provide funding for the research and development of more cost-effective technologies to help bring all systems into compliance with the new standard. The agency will also work with small communities to maximize grants and loans.

## **Water Treatment**

These treatment technologies are available to remove arsenic from water:

- **Coagulation/filtration:** This method uses conventional treatment processes to coagulate the arsenic. The treated water is then filtered.
- **Activated alumina:** This method removes arsenic from water by adsorption onto alumina.
- **Reverse osmosis:** This technology uses pressure to force water through a membrane filter, leaving arsenic behind.
- **Anion exchange:** Arsenic is adsorbed onto a resin, and the resin is periodically regenerated with sodium chloride solution.
- **Oxidation/filtration:** This technology oxidizes naturally occurring iron, which binds to arsenic followed by filtration.

## **For More Information**

### **Washington State Department of Health:**

Drinking Water Southwest Regional Office.....	360-664-0768
Drinking Water Northwest Regional Office.....	253-395-6750
Drinking Water Eastern Regional Office .....	509-456-3115
Drinking Water Data & Source Monitoring: Jimmy Weber .....	360-236-3097
Treatment Technology Options: Sam Perry .....	253-395-6755
Arsenic Health Effects: Jim W. White .....	360-236-3192

**Office of Drinking Water:** <http://www.doh.wa.gov/ehp/dw>

**EPA Arsenic Information:** <http://www.epa.gov/OGWDW/arsenic.html>

**Agency for Toxic Substances and Disease Registry** (U.S. Centers for Disease Control and Prevention): <http://www.atsdr.cdc.gov/tfacts2.html>

